

## Radio-frequency controllable quantum interference in Mössbauer spectroscopy

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### Abstract

The role of quantum interference (QI) in spectra of the resonant Mössbauer scattering is investigated. As a mechanism ensuring the QI conditions, the radio-frequency (RF) mixing of the spin sublevels of the excited nuclear state is considered. It is shown that QI leads to a significant intensity redistribution of the elastic and Raman scattering. © 2006 Springer Science+Business Media, Inc.

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### Keywords

Mössbauer gamma optics